

Zanzibar (Tanzania)

Due to this historical background, the urban development of Zanzibar Town is based on two urban cores: the Arab and Indian Stone Town where first building activities started in the 15th century and the African Quarter called Ng'ambo (Swahili for "the other side"), which emerged in the 19th century. Both were and still are separated by a former creek which is now an open space. While the Stone Town became a World Heritage Site in 2002 and a tourist destination, Ng'ambo is the area where recent urban growth and city expansion takes place. During the colonial period and the 1970s, urban development was controlled and limited, although not too forcefully. With the effects of trade liberalization in 1984, Zanzibar Town faced a rapid process of urban growth and urban expansion. Between 1977 and 1994, the Town area expanded about 21 km².

According to the Zanzibar Sustainable Program (ZSP 1998), 45% of the residents live in the unplanned area. Other sources even estimate a percentage of 73 % of the area being unplanned and 83 % of the population living in unplanned residential areas (Veijalainen 2000: 44 quoting Muhajir 1987).

Marine aquaculture in Tanzania, which is dominated by the exporting of dried red seaweed, is also a significant source of income, particularly for people living in coastal areas. Tanzania is the fifth largest exporter of red seaweed (Bryceson & Beymer-Farris, 2011: 16). Export of dried seaweed constitutes an average of 20% of the Zanzibar export earnings (Mtolera et al., 2009: 46). Red seaweed is produced for the high-value extract known as carrageenan, which is used as a stabilizer, emulsifier, or thickening agent in various cosmetics, food additives and pharmaceutical products (Bryceson & Beymer-Farris, 2011: 16). Seaweed farming techniques were introduced to women living in Zanzibar in the 1970s. More than 90% of Tanzania's seaweed farmers are women.

Research by Markus Kukkonen (2017) showed that the urban area of Zanzibar City expanded by 40% from 2004 to 2013. Spatial patterns of expansion were largely driven by the already existing building pattern and land-use constraints. Based on the business-as-usual scenario, the city is predicted to expand 89% from 2013 until 2030 and will continue to sprawl to new regions at the outskirts of the current built-up area. Establishing new urban centres had the highest impact on directing urban expansion from the tested alternative planning scenarios.

This expansion has come along with challenges in the city that is affecting the marine environment. These include marine litter, disposal of liquid and solid waste. The dry conditions in the island mean that water sources are from boreholes which in several instances have been known to harbour faecal matter due to poor waste management. The port at Zanzibar does not make the situation better, remedies are needed and research to facilitate proper planning

of the urban fringes and the protection of the marine environment in the process.